Fire Regime Condition Class (FRCC) Interagency Handbook
Reference Conditions

Modeler: Wendel Hann   **Date:** 9/25/03   **PNVG Code:** SWSS1

Potential Natural Vegetation Group: Southwest Shrub Steppe (Without Trees)

Geographic Area: Southwest and southern Great Plains (primarily southeast Arizona, southern New Mexico, west Texas).

Description: This type typically occurs on upland flats, benches, gentle slopes, and in the foothills of the desert mountain ranges. Vegetation is open shrubland with grass dominated by flourensia, creosote bush, tarbush, mesquite, catclaw, opuntia, yucca, black grama, tobosa grass, blue grama, sideoats grama, and threeawns, with intermingled forbs. This type correlates with Kuchler's (1964) types 58and 59.

Fire Regime Description: Fire regime group II, frequent replacement. The mean fire interval is about 10 years with high variation due to year to year variation in grass production related to drought and moisture cycles. Fire years are typically bimodal occurring in the late spring (May and June) and fall (September and October) correlated with grass production following spring summer monsoon moisture. Grazing of the grassy fuels by large ungulates increases the variaton of the fire interval.

Vegetation Type and Structure of Fire Regime Group II

Class	Percent of Landscape	Description
A: post replacement	5	Dominated by resprouts and seedlings of shrubs and grasses and post-fire associated forbs. This type typically occurs where fires burn relatively hot in classes B and C.
B: mid-development closed	10	Greater than 15 percent shrub cover and 30-50 per cent grass and forb cover; generally associated with more productive soils. Effects of cumulative drought can cause a shift from this class to class C.
C: mid- open	85	Less than 15 percent shrub cover and 20 to 40 per cent grass and forb cover generally associated with less productive cobbly and gravelly soils. Effects of cumulative drought can cause a shift from class B to this class.
D: late- open		
E: late- closed		
Total	100	

Fire Frequency and Severity

Fire Frequency-Severity	Modeled Probability	Percent, All Fires	Description
Replacement Fire	.09	90	Replacement fires in B and C
Non-Replacement Fire	.01	10	Mosaic fires in classes B and C
All Fire Frequency*	.10	100	10 year mean fire frequency with high variation due to complex interaction of drought cycles and herbivory

*Sum of replacement fire and non-replacement fire probabilities.

References

Brown, James K.; Smith, Jane Kapler, eds. 2000. Wildland fire in ecosystems: effects of fire on flora. Gen. Tech. Rep. RMRS-GTR-42-vol. 2. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 257 p.

Kuchler, A. W. 1964. Manual to accompany the map of potential natural vegetation of the conterminous United States. American Geographical Society. Spec. Publ. No. 36. Lib. Congress Cat. Card Num. 64-15417. 156 p.

Schmidt, Kirsten M, Menakis, James P., Hardy, Colin C., Hann, Wendel J., Bunnell, David L. 2002. Development of coarse-scale spatial data for wildland fire and fuel management. Gen. Tech. Rep. RMRS-GTR-87. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 41 p. + CD.

U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (2002, December). Fire Effects Information System, [Online]. Available: http://www.fs.fed.us/database/feis/.

MODELER FIELD REVIEWS (if applicable):
Wendel Hann - Arizona 2003, New Mexico 2003, Texas 2001

VDDT Results: